

What is claimed is:

1. A tone generation apparatus for generating a tone on the basis of performance information, a plug-in board being removably attachable to said tone generation apparatus, said plug-in board being capable of generating a tone on the basis of performance information and extending a tone generating function of said tone generation apparatus, said tone generation apparatus comprising:

a nonvolatile memory that is capable of storing at least tone color name information and tone parameter name information of tone color data possessed by said plug-in board attached to said tone generation apparatus;

a detector that detects whether a plug-in board replacement has taken place in said tone generation apparatus; and

an updating processing section that, when it is detected by said detector that the plug-in board replacement has taken place, updates stored contents of said nonvolatile memory with tone color name information and tone parameter name information of tone color data possessed by another plug-in board newly attached to said tone generation apparatus.

2. A tone generation apparatus as claimed in claim 1 wherein said nonvolatile memory is further capable of storing plug-in board identification information identifying said plug-in board attached to said tone generation

apparatus, and

wherein said detector detects whether or not the plug-in board replacement has taken place in said tone generation apparatus, by comparing plug-in board identification information obtained from said plug-in board attached to said tone generation apparatus and the plug-in board identification information stored in said nonvolatile memory.

3. A tone generation apparatus to which a plug-in board is removably attachable, said plug-in board being capable of generating a tone on the basis of performance information and extending a tone generating function of said tone generation apparatus, said tone generation apparatus comprising:

a tone generation section that generates a tone on the basis of performance information;

a tone color selection section that selects tone colors of tones to be generated by said plug-in board attached to said tone generation apparatus and by said tone generation section;

an offset editing section that edits a tone color possessed by said plug-in board attached to said tone generation apparatus, by adding desired modification data to tone color data of the tone color possessed by said plug-in board; and

a transfer control section that, when the tone color selected by said tone color selection section has been

edited by said offset editing section, transfers a tone color number and the modification data of the selected tone color to said plug-in board.

4. A tone generation apparatus for generating a tone on the basis of performance information, a plug-in board being removably attachable to said tone generation apparatus, said plug-in board being capable of generating a tone on the basis of performance information and extending a tone generating function of said tone generation apparatus, said tone generation apparatus comprising:

a performance information generation section that generates first performance information on the basis of a readout from a storage device;

a performance information reception section that receives second performance information given from outside said tone generation apparatus; and

a merging processing section that merges said first performance information generated by said performance information generation section and said second performance information received by said performance information reception section, to thereby provide merged performance information,

wherein a tone is generated by at least one of said tone generation apparatus and said plug-in board on the basis of the merged performance information provided by said merging processing section.

5. A tone generation apparatus to which a plug-in board is removably attachable, said plug-in board being capable of generating a tone on the basis of performance information and extending a tone generating function of said tone generation apparatus, said tone generation apparatus comprising:

a tone generation section that generates a tone through an automatic performance or automatic accompaniment based on tempo clock information; and

a supply section that supplies the tempo clock information to said plug-in board attached to said tone generation apparatus,

whereby said plug-in board is allowed to generate a tone in synchronism with the tempo clock information supplied by said supply section.

6. A tone generation apparatus for generating a tone on the basis of performance information, a plug-in board being removably attachable to said tone generation apparatus, said plug-in board being capable of generating a tone on the basis of performance information and extending a tone generating function of said tone generation apparatus, said tone generation apparatus comprising:

a nonvolatile memory that is capable of storing at least tone color information of a custom voice possessed by said plug-in board, the tone color information of the custom voice being information obtained by editing tone color information originally possessed by said plug-in

board and capable of being used for tone generation by said plug-in board; and

a control section that performs control to store, in said nonvolatile memory, the tone color information of the custom voice possessed by said plug-in board attached to said tone generation apparatus.

7. A tone generation apparatus as claimed in claim 6 which further comprises an input/output control section that transfers the tone color information of the custom voice, stored in said nonvolatile memory, to an external storage medium for saving, thereto, of the tone color information of the custom voice and that receives tone color information of a custom voice stored in an external storage medium and loads the received tone color information into said nonvolatile memory.

8. A tone generation apparatus for generating a tone on the basis of performance information, a plug-in board being removably attachable to said tone generation apparatus, said plug-in board being capable of generating a tone on the basis of performance information and extending a tone generating function of said tone generation apparatus, said tone generation apparatus comprising:

a nonvolatile memory that is capable of storing tone color information of a custom voice possessed by said plug-in board and plug-in board identification information identifying said plug-in board, the tone color information

of the custom voice being information obtained by editing tone color information originally possessed by said plug-in board and capable of being used for tone generation by said plug-in board;

a detector that, at powering-up of said tone generation apparatus, detects whether plug-in board identification information obtained from said plug-in board attached to said tone generation apparatus and the plug-in board identification information stored in said nonvolatile memory matches with each other; and

a control section that, when it is detected by said detector that the plug-in board identification information obtained from said plug-in board attached to said tone generation apparatus and the plug-in board identification information stored in said nonvolatile memory matches with each other, transfers the tone color information of the custom voice, stored in said nonvolatile memory, to said plug-in board attached to said tone generation apparatus, to thereby write the tone color information of the custom voice into said plug-in board.

9. A tone generation apparatus to which a mono-part tone generator plug-in board is removably attachable, said mono-part tone generator plug-in board including a mono-part tone generator device that generates a tone in response to a performance of one particular performance part from among performances of a predetermined plurality of performance parts, said tone generation apparatus comprising:

a tone generation section that generates tones of one or more performance parts in response to performances of one or more performance parts from among performances of a predetermined plurality of performance parts;

a tone color selection section that selects tone colors of tones to be generated by said tone generation section and said mono-part tone generator device; and

a control section that, when a tone color selected for a tone of one given performance part being generated by said mono-part tone generator device has been selected by said tone color selection section as a tone color for a tone of another performance part, inhibits generation of the tone of the one given performance part and performs control to cause said mono-part tone generator device to generate the tone of the other performance part with the selected tone color.

10. A tone generation apparatus as claimed in claim 9 wherein another plug-in board is also removably attachable to said tone generation apparatus, and

wherein said control section, in stead of inhibiting the generation of the tone of the one given performance part, performs control to cause said tone generation section or the other plug-in board to generate the tone of the one given performance part with a substitute tone color for the selected tone color.

11. A tone generation apparatus to which a mono-part

tone generator plug-in board is removably attachable, said mono-part tone generator plug-in board including a mono-part tone generator device that generates a tone in response to a performance of one particular performance part from among performances of a predetermined plurality of performance parts, said tone generation apparatus comprising:

a tone generation section that generates tones of one or more performance parts in response to performances of one or more performance parts from among performances of a predetermined plurality of performance parts;

a tone color selection section that selects tone colors of tones to be generated by said tone generation section and said mono-part tone generator device; and

a control section that, when a tone of one given performance part being generated by said mono-part tone generator device corresponds to a manual performance and when a tone color selected for the tone of the one given performance part has been selected by said tone color selection section as a tone color for a tone of another performance part, inhibits generation of the tone of the other performance part and thereby allows said mono-part tone generator device to continue generating the tone of the one given performance part with the selected tone color.

12. A tone generation apparatus as claimed in claim 11 wherein another plug-in board is also removably attachable

to said tone generation apparatus, and

wherein said control section, in stead of inhibiting the generation of the tone of the one given performance part, performs control to cause said tone generation section or the other plug-in board to generate the tone of the other performance part with a substitute tone color for the selected tone color.

13. A storage management method for use with a tone generation apparatus to which a plug-in board is removably attachable, said plug-in board being capable of generating a tone on the basis of performance information and extending a tone generating function of said tone generation apparatus, said tone generation apparatus including a nonvolatile memory that is capable of storing at least tone color name information and tone parameter name information of tone color data possessed by said plug-in board attached to said tone generation apparatus, said storage management method comprising;

a step of detecting whether a plug-in board replacement has taken place in said tone generation apparatus; and

a step of, when it is detected by said step of detecting that the plug-in board replacement has taken place, updating stored contents of said nonvolatile memory with tone color name information and tone parameter name information of tone color data possessed by another plug-in board newly attached to said tone generation apparatus.

14. A machine-readable storage medium containing a group of instructions to cause said machine to perform the storage management method as claimed in claim 13.

15. A tone color control method for use with a tone generation apparatus to which a plug-in board is removably attachable, said plug-in board being capable of generating a tone on the basis of performance information and extending a tone generating function of said tone generation apparatus, said tone color control method comprising:

a step of selecting a tone color of a tone to be generated by said plug-in board attached to said tone generation apparatus;

a step of editing a tone color possessed by said plug-in board, by adding desired modification data to tone color data of the tone color possessed by said plug-in board; and

a step of, when the tone color selected by said step of selecting has been edited by said step of editing, transfers a tone color number and the modification data of the selected tone color to said plug-in board, to thereby allow the tone color of the transferred tone color number to be controlled by said plug-in board in accordance with the transferred modification data.

16. A machine-readable storage medium containing a group of instructions to cause said machine to perform the tone

color control method as claimed in claim 15.

17. A tone generation method using a tone generation apparatus to which a plug-in board is removably attachable, said plug-in board being capable of generating a tone on the basis of performance information and extending a tone generating function of said tone generation apparatus, said tone generation method comprising:

a step of generating first performance information on the basis of a readout from a storage device;

a step of receiving second performance information given from outside said tone generation apparatus; and

a step of merging said first performance information generated by said step of generating and said second performance information received by said step of receiving, to thereby provide merged performance information,

wherein a tone is generated by at least one of said tone generation apparatus and said plug-in board on the basis of the merged performance information provided by said merging processing section.

18. A machine-readable storage medium containing a group of instructions to cause said machine to perform the tone generation method as claimed in claim 17.

19. A tone generation method for use with a tone generation apparatus to which a plug-in board is removably attachable, said plug-in board being capable of generating

a tone on the basis of performance information and extending a tone generating function of said tone generation apparatus, said tone generation method comprising:

a step of generating a tone through an automatic performance or automatic accompaniment based on tempo clock information; and

a step of supplying the tempo clock information to said plug-in board attached to said tone generation apparatus,

whereby said plug-in board is allowed to generate a tone in synchronism with the tempo clock information supplied by said step of supplying.

20. A machine-readable storage medium containing a group of instructions to cause said machine to perform the tone generation method as claimed in claim 19.

21. A storage management method for use with a tone generation apparatus to which a plug-in board is removably attachable, said plug-in board being capable of generating a tone on the basis of performance information and extending a tone generating function of said tone generation apparatus, said tone generation apparatus including a nonvolatile memory that is capable of storing tone color information of a custom voice possessed by said plug-in board and plug-in board identification information identifying said plug-in board, the tone color information

of the custom voice being information obtained by editing tone color information originally possessed by said plug-in board and capable of being used for tone generation by said plug-in board, said storage management method comprising:

a step of, at powering-up of said tone generation apparatus, detecting whether plug-in board identification information obtained from said plug-in board attached to said tone generation apparatus and the plug-in board identification information stored in said nonvolatile memory matches with each other; and

a step of, when it is detected by said step of detecting that the plug-in board identification information obtained from said plug-in board attached to said tone generation apparatus and the plug-in board identification information stored in said nonvolatile memory matches with each other, transfers the tone color information of the custom voice, stored in said nonvolatile memory, to said plug-in board attached to said tone generation apparatus, to thereby write the tone color information of the custom voice into said plug-in board.

22. A machine-readable storage medium containing a group of instructions to cause said machine to perform the storage management method as claimed in claim 21.

23. A tone generation method for use with a tone generation apparatus to which a mono-part tone generator

plug-in board is removably attachable, said mono-part tone generator plug-in board including a mono-part tone generator device that generates a tone in response to a performance of one particular performance part from among performances of a predetermined plurality of performance parts, said tone generation method comprising:

a step of generating tones of one or more performance parts in response to performances of one or more performance parts from among performances of a predetermined plurality of performance parts;

a step of selecting tone colors of tones to be generated by said step of generating and said mono-part tone generator device; and

a control step of, when a tone color selected for a tone of one given performance part being generated by said mono-part tone generator device has been selected by said step of selecting as a tone color for a tone of another performance part, inhibiting generation of the tone of the one given performance part and performs control to cause said mono-part tone generator device to generate the tone of the other performance part with the selected tone color.

24. A tone generation apparatus as claimed in claim 23 wherein another plug-in board is also removably attachable to said tone generation apparatus, and

wherein said control step, in stead of inhibiting the generation of the tone of the one given performance part,

performs control to cause said step of generating or the other plug-in board to generate the tone of the one given performance part with a substitute tone color for the selected tone color.

25. A machine-readable storage medium containing a group of instructions to cause said machine to perform the tone generation method as claimed in claim 23.

26. A machine-readable storage medium containing a group of instructions to cause said machine to perform the tone generation method as claimed in claim 24.

27. A tone generation control method for use with a tone generation apparatus to which a mono-part tone generator plug-in board is removably attachable, said mono-part tone generator plug-in board including a mono-part tone generator device that generates a tone in response to a performance of one particular performance part from among performances of a predetermined plurality of performance parts, said tone generation control method comprising:

a step of generating tones of one or more performance parts in response to performances of one or more performance parts from among performances of a predetermined plurality of performance parts;

a step of selecting tone colors of tones to be generated by said step of generating and said mono-part tone generator device; and

a control step of, when a tone of one given performance part being generated by said mono-part tone generator device corresponds to a manual performance and when a tone color selected for the tone of the one given performance part has been selected by said step of selecting as a tone color for a tone of another performance part, inhibiting generation of the tone of the other performance part and thereby allowing said mono-part tone generator device to continue generating the tone of the one given performance part with the selected tone color.

28. A tone generation control method as claimed in claim 27 wherein another plug-in board is also removably attachable to said tone generation apparatus, and

wherein said control step, in stead of inhibiting the generation of the tone of the other performance part, performs control to cause said step of generating or the other plug-in board to generate the tone of the other performance part with a substitute tone color for the selected tone color.

29. A machine-readable storage medium containing a group of instructions to cause said machine to perform the tone generation control method as claimed in claim 27.

30. A machine-readable storage medium containing a group of instructions to cause said machine to perform the tone

Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	